

## SMARTer® RACE 5'/3' Kit Components

<b>Catalog Nos.</b>	<b>Amount</b>	<b>Lot Number</b>
634860 (Not sold separately) Sold as a part of 634858 & 634859	10 rxns	Specified on product label.

### Description

The SMARTer RACE 5'/3' Kit Components allow the synthesis of first-strand cDNA from polyA+ or total RNA via SMART® (Switching Mechanism at 5' End of RNA Template) technology, and facilitate the performance of 5'- and 3'-RACE (Rapid Amplification of cDNA Ends) PCR by means of the kit's Universal Primer Mix. When used as a part of the full SMARTer RACE 5'/3' Kit (Cat. Nos. 634858 & 634859), RACE PCR products can be amplified with SeqAmp™ DNA Polymerase, and cloned into the linearized pRACE vector with an In-Fusion® HD Cloning kit. Gene specific RACE primers are supplied by the user.

### Package Contents

#### Box 1

- 10 µl SMARTer II A Oligonucleotide (24 µM)
- 5 µl Control Mouse Heart Total RNA (1 µg/µl)

#### Box 2

- 10 µl 3' RACE CDS Primer A (12 µM)
- 10 µl 5' RACE CDS Primer A (12 µM)
- 10 µl 10X Random Primer Mix (20 µM)
- 40 µl 5X First-Strand Buffer
- 10 µl dNTP mix (20 mM)
- 5 µl Dithiothreitol (100 mM)
- 1 ml Deionized H<sub>2</sub>O
- 2 tubes Tricine-EDTA Buffer (1 ml each)
- 20 µl SMARTScribe™ Reverse Transcriptase (100 U/µl)
- 10 µl RNase Inhibitor (40 U/µl)
- 400 µl 10X Universal Primer A Mix (UPM)
- 25 µl Control 5'-RACE TFR Primer (10 µM)
- 25 µl Control 3'-RACE TFR Primer (10 µM)
- 50 µl Universal Primer Short (10 µM)
- 20 µl Linearized pRACE (50 ng/µl)

### Storage Conditions

- Store Box 1 at -70°C
- Store Box 2 at -20°C

---

#### Takara Bio USA, Inc.

1290 Terra Bella Avenue, Mountain View, CA 94043, USA  
U.S. Technical Support: [technical\\_support@takarabio.com](mailto:technical_support@takarabio.com)

United States/Canada 800.662.2566 (012420)	Asia Pacific +1.650.919.7300	Europe +33.(0)1.3904.6880	Japan +81.(0)77.565.6999
--	---------------------------------	------------------------------	-----------------------------

# Certificate of Analysis

Cat. No. 634860

SMARTer RACE 5'/3' Kit Components (Not sold separately)

Sold as a part of 634858 & 634859

---

## Expiration Date

- Specified on product label.

## Shipping Conditions

- Box 1: Dry ice (−70°C)
- Box 2: Dry ice (−70°C)

## Product Documents

Documents for our products are available for download at [takarabio.com/manuals](http://takarabio.com/manuals)

The following documents apply to this product:

- SMARTer RACE 5'/3' Kit User Manual
- SMARTer RACE 5'/3' Kit Protocol-at-a-Glance
- Linearized pRACE Vector Information

## Quality Control Data

A sample kit from each lot of SMARTer RACE 5'/3' Kit Components was tested to ensure quality and performance. 50 ng and 10 ng of Control Mouse Heart Total RNA was used as a template for first-strand cDNA synthesis. The resulting first-strand cDNA was then used—along with the Universal Primer Mix, the positive control TFR Primers, and SeqAmp DNA Polymerase—in separate 5'- and 3'-RACE reactions that produced the expected 2.1 kb 5' RACE product and 3.1 kb 3' RACE product, respectively. The linearized pRACE vector was tested with a control RACE PCR fragment via In-Fusion HD cloning, and yielded >500 colonies at a transformation efficiency of  $>5 \times 10^8$  cfu/μg.

It is certified that this product meets the above specifications, as reviewed and approved by the Quality Department.

## SMARTer® RACE 5'/3' Kit Components

### CATALOG NO.

634860

### NOTICE TO PURCHASER:

Our products are to be used for **Research Use Only**. They may not be used for any other purpose, including, but not limited to, use in humans, therapeutic or diagnostic use, or commercial use of any kind. Our products may not be transferred to third parties, resold, modified for resale, or used to manufacture commercial products or to provide a service to third parties without our prior written approval.

Your use of this product is also subject to compliance with the licensing requirements, listed below if applicable, and described on the product's web page at <http://www.takarabio.com>. It is your responsibility to review, understand and adhere to any restrictions imposed by these statements.

### TRADEMARKS:

© 2014 Takara Bio Inc. All Rights Reserved.

All trademarks are the property of Takara Bio Inc. or its affiliate(s) in the U.S. and/or other countries or their respective owners. Certain trademarks may not be registered in all jurisdictions.

---

#### Takara Bio USA, Inc.

1290 Terra Bella Avenue, Mountain View, CA 94043, USA

U.S. Technical Support: [techUS@takarabio.com](mailto:techUS@takarabio.com)

**United States/Canada**

800.662.2566

**Asia Pacific**

+1.650.919.7300

**Europe**

+33.(0)1.3904.6880

**Japan**

+81.(0)77.565.6999

1/24/2020